



# **Family and Consumer Sciences Extension**

## **—Reducing the Risk of Foodborne Illness in Children 2003**

*Putting Knowledge to Work for Georgia Families*

The University of Georgia

Cooperative Extension Service

### ***The Problem***

- An estimated 76 million Americans become ill from foodborne illness each year, resulting in 325,000 hospitalizations and 5,000 deaths (source: 1). The Economic Research Service (ERS) estimates the cost of foodborne illness from the five major foodborne illnesses at \$6.9 billion per year, \$2.3 billion of that in children under age 10 (source: 2).
- Young children are more at risk for foodborne illness and serious complications: blood poisoning, kidney disease, seizures, strokes, heart complications, death (source: 2).
- ERS estimated costs for a single case requiring hospitalization is \$13,117 for salmonellosis, \$11,200 for *E. coli* O157:H7 and a staggering \$922,583 for listeriosis (source: 3).
- As of 2002, there were 1,780,244 children under 13 years of age in Georgia (source: 4)
- According to Georgia DHR, there are over 1,675 licensed day care centers and 5,584 registered family day care homes. Additionally, there are at least 3,753 informal care givers providing child care to Georgia's children (source: 5).
- An approximate 40% turnover rate annually in child care staff is indicative of the potential for problems and the need for on-going, high quality child care training programs in food safety (source:6).
- Georgia consistently has a high number of Yersiniosis cases in children under age two at the holidays - a cross-contamination problem with chitterling preparation.

### ***Research-based Solutions***

- Food handler training programs help to acquaint providers, children and parents with the seriousness and the causes of foodborne illness.
- By controlling the major contributing factors (improper cooling, inadequate cooking, time lapse between preparation and serving, infected persons handling food, contaminated raw foods or ingredients), a high percentage of foodborne illnesses could be prevented.

### ***Extension's Role***

- Teach child care providers the importance of cleanliness in food handling.
- Teach child care providers about hazards that can occur at various stages during storing, preparing and serving foods and steps to take to eliminate hazards.
- Provide training that fulfills state requirements for licensure and enables Georgians not only to maintain jobs, but also to provide safer environments for children in their care.
- Teach children and parents four steps to keeping food safe - clean, separate, cook, and chill.
- Partner with Georgia DHR - Division of Public Health on food safety education campaigns.

### ***Extension's Contribution to Solving the Problem***

- Food handler education was provided to over 1000 school foodservice employees and 344 child care providers. FACS Extension provides annual inservice training for school foodservice employees in several Georgia counties.
- The ServSafe® food safety education program was provided to 61 school food service employees. The ServSafe® educational program is designed to address food safety issues.
- As part of a federally funded food safety program directed by the University of Georgia Cooperative Extension Service, two new curriculum packages were introduced to teach food safety based on the nationwide *Fight BAC!*® Food Safety Education Campaign. The *Smart Kids Fight BAC!*® Food Safety curriculum was used to educate over 1,500 children in Georgia in 2003.

## ***Impact on Georgians***

- Almost 97% of the child care providers who participated in food safety extension programs said the training was very helpful for them to ensure the food safety in their child care centers.
- Nearly 52% of the child care providers in Food Safety and Sanitation training programs improved their food handling knowledge. Almost all of them planned to wash their hands with warm running water and soap at least 20 seconds before working with foods and rinse fruits and vegetables with running cool water before they are eaten.
- The middle school children who participated in food safety extension programs learned food safety practices. For example, 94% learned to wash their hands before handling foods; 77% learned to wash fruits and vegetables before eating or preparing; and 91% learned to keep raw foods separate from cooked foods to prevent contamination.
- A three-month follow-up survey conducted with the school foodservice employees who completed the school foodservice training program revealed that 86% of them have applied learned food safety practices to improve their school food services and 96% of them have shared learned food safety information with the school children.
- Comparison of pre and post-test evaluations indicates that elementary school children who participated in the *Smart Kids Fight BAC!* ® program significantly improved knowledge of all four *Smart Kids Fight BAC!* ® food safety principles - clean, separate, cook and chill. Nearly 63% of the children participated in the *Smart Kids Fight BAC!* ® program improved their food safety knowledge. Almost 92% of the children who were in the *Smart Kids Fight BAC!* ® program, learned how to clean their hands before touching foods.

## ***Sources:***

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- 4) U.S. Census Bureau. 2002. [Http://eire.census.gov/popest/data/states](http://eire.census.gov/popest/data/states). Accessed 11/03.
- 5) Georgia Dept. of Human Resources, Child Care Licensing.  
[Http://www2.state.ga.us/Departments/DHR/ORS/orsccl.htm](http://www2.state.ga.us/Departments/DHR/ORS/orsccl.htm). Accessed 11/03.
- 6) Personal Communication. 2002. Jo Cato, Child Care Licensing.
- 7) Centers for Disease Control and Prevention.  
[Http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5215a4.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5215a4.htm). Accessed 11/03.

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